

MISCELLANEOUS.

On the Affinities of the so-called Torpedo (Cyclobatis, Egerton) from the Cretaceous of Mount Lebanon. By A. SMITH WOODWARD, F.G.S., F.Z.S.

IN 1844, Sir Philip Egerton read a paper before the Geological Society of London, describing a small Selachian from the chalk of Mount Lebanon, under the name of *Cyclobatis oligodactylus*; six years later Prof. F. J. Pictet figured a second specimen, showing further anatomical details; and quite recently Mr. James W. Davis has published some notes on the genus, adding a new species, *C. major*. Following Egerton's original determination, the fish seems to have been universally regarded up to the present time as referable to the Torpedinidæ, partly on account of its rounded shape, and partly on account of the supposed absence of dermal defences. The fine series of specimens now in the British Museum, however, appears to demonstrate conclusively that these generally accepted views as to affinities of *Cyclobatis* have no sure foundation in fact. That the genus is truly referable to the Trygonidæ seems evident from the following considerations:—(1) The pectoral fins are uninterruptedly continued to the end of the snout, and were thus probably confluent in front. (2) The pelvic arch is placed far forwards, and the rays of the pelvic fins scarcely extend posteriorly beyond the extremity of the pectorals. (3) There are no traces of median fins. (4) The skin is armed with spinous tubercles. The fact last named has not been noted before; but on the dorsal aspect of the fish there is a longitudinal median row of large spinous tubercles, and the remainder of the body and fins is covered with innumerable prickles. In one small fossil the tail has the appearance of being completely encased in rows of the large tubercles. There is thus no evidence, as yet, of the existence of 'electric rays' of an earlier date than those made known by Volta and Baron de Zigno from the Eocene of Monte Bolca, near Verona, in Northern Italy.—*Abstract, Section C, British Association, Manchester, 1887.*

Zygæna dissimilis, Murray.

GENTLEMEN,—In the 'Annals and Magazine of Natural History' for October is a paper by Mr. Murray, of the Kurrachee Museum, who in describing a hammer-headed shark which he supposed to be new, observed upon it not being delineated in my 'Fishes of India.' The reason seems to be that the species is the *Zygæna mokarran* of Rüppell, figured in Taf. 17. fig. 3, 'Neue Wirbelthiere der Fauna Abyssinien,' 1835, and who fully described the fish. I did not obtain it in India when there, neither did it exist in any of the local museums, which was my reason for not inserting it. Also *Lamna Guentheri* of the same author from the same locality, described in your journal, (5) vol. xiii. p. 349 (1884), is figured and described in my work as *Carcharias tricuspидatus*, p. 713, pl. 186. fig. 1.

Cheltenham, Oct. 24, 1887.

FRANCIS DAY.